

Claims 1-5 are rejected under 35 U.S.C. §101 because the claimed inventions is directed to non-statutory subject matter. In response to this rejection, claims 4 and 5 have been amended as suggested by the Examiner.

Claims 1-5 are rejected under 35 U.S.C. §102(a) as being anticipated by Miyake et al. This rejection is respectfully traversed. Applicants note that the reference to Miyake et al. was not published until June 1, 2001, after Application' January 5, 2000 priority date of JP 2001-392. Accordingly, in order to reduce the issues and expedite prosecution, enclosed is a sworn translation of JP 2001-392. Accordingly, Miyake is no longer prior art herein.

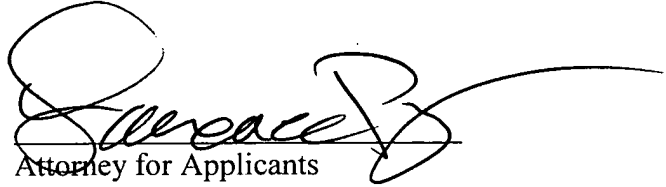
As to the restriction requirement, non-elected claims 6-13 and 20-24 are cancelled; Applicants may prosecute their subject matter separately in a divisional application. As to non-elected claims 14-19, they have been amended above to depend from allowable claims 4 and 5. Since they refer to methods of making or using an allowable composition of matter, rejoinder thereof is earnestly solicited.

In view of the above amendments and remarks, Applicants submit that all of the Examiner's concerns are now overcome and the claims are now in allowable condition. Accordingly, reconsideration and allowance of this application is earnestly solicited.

Claims 4, 5, 14-19 and 25-32 remain presented for continued prosecution.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lawrence S. Perry", is written over a horizontal line.

Attorney for Applicants  
Lawrence S. Perry  
Registration No. 31,865

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO SPECIFICATION

The paragraph at page 3, lines 15-20 has been amended as follows:

BRIEF [EXPLANATION] DESCRIPTION OF THE DRAWINGS

FIG. 1 shows the construction steps of  $\beta$ 1,3-galactosyltransferase plasmids pBBPIJ and pBBPJ [structure of capsular polysaccharide biosynthesis genes in *Streptococcus agalactiae* Type Ia and Type Ib].

FIG. 2 shows the structure of capsular polysaccharide biosynthesis genes in *Streptococcus agalactiae* Type Ia and Type Ib [construction steps of  $\beta$ 1,3-galactosyltransferase plasmids pBBPIJ and pBBPJ].

The paragraph 10, lines 5-24 has been amended as follows:

Also, in order to have the  $\beta$ 1,3-galactosyltransferase activity of the protein of the present invention, it has preferably at least 50% or more, preferably 60% or more, still more preferably 80% or more, most preferably 95% or more, of identity to the amino acid sequence represented by SEQ ID NO: 1. The identity of a nucleotide sequence or an amino acid sequence can be determined using the algorithm "BLAST" by Karlin and Altschl (*Proc. Natl. Acad. Sci. USA*, 90: 5873-5877 (1993)). The programs called "BLASTN" and "LASTX" have developed based on the above algorithm (*J. Mol. Biol.*, 215: 403-410 (1990)). In the case of analyzing a nucleotide sequence based on BLAST, the

parameter can be set to e.g. score = 100, wordlength = 12. And in the case of analyzing an amino acid sequence based on BLASTX, the parameter can be set to e.g. score = 50, wordlength = 3. In the case of using BLAST or Gapped BLAST program, a default parameter of each program can be used. The specific analysis methods of using the above programs are known in the art [(<http://www.ncbi.nlm.nih.gov>.)].

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS:

4. (Amended) An isolated or purified protein comprising the amino acid sequence represented by SEQ ID NO:1.

5. (Amended) An isolated or purified protein comprising an amino acid sequence in which at most 20 amino acids are deleted[, replaced, inserted] or added in the amino acid sequence represented by SEQ ID NO:1, said protein having a  $\beta$ 1,3-galactosyltransferase activity.

14. (Twice Amended) A method for producing a protein according to claims 4 and 5 [having a  $\beta$ 1,3-galactosyltransferase activity], comprising:

culturing [the] a transformant [of claim 10] harboring a recombinant DNA encoding said protein in a medium to produce and accumulate [a] said protein [having a  $\beta$ 1,3-galactosyltransferase activity] in [the] culture, and recovering the protein from the culture.

15. (Twice Amended) A method for producing a galactose-containing carbohydrate, comprising:

selecting, as an enzyme source, a culture of the transformant of claim  
[10] 14 or a treated product of the culture,  
allowing the enzyme source, uridine-5'-diphosphogalactose and an  
acceptor carbohydrate to be present in an aqueous medium to produce and accumulate the  
galactose-containing carbohydrate in the aqueous medium, and  
recovering the galactose-containing carbohydrate from the aqueous  
medium.

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